

DP-308286

ABSTRACT OF THE DISCLOSURE

A process and electronic assembly for conducting heat from a semiconductor circuit device mounted to a substrate. The substrate is supported by a housing member equipped with a heat-conductive member. A surface of the device opposite the substrate is bonded to the heat-conductive member with a solder joint formed of indium and optionally one or more alloying constituents that increase the melting temperature of the solder joint above that of indium. The housing member, substrate, and device are assembled so that an indium-containing solder material is present between the heat-conductive member and the surface of the device opposite the substrate. The solder material is then reflowed to form the solder joint. The alloying constituent(s) are preferably introduced into the solder joint during reflow.